## AMENDMENTS TO THE SPECIFICATION

Please amend the specification, as follows:

Please replace the current Sequence Listing with the enclosed substitute Sequence Listing.

Please replace the paragraphs at page 4, lines 21-24, with the following paragraphs:

Figure 1 shows the deduced amino acid sequence of CAH1 (SEQ ID NO: 7). The arrow indicates the predicted signal peptide cleavage site. Underlined triplets indicate possible *N*-glycosylation sites.

Figure 2 shows the nucleotide sequence of Arabidopsis CAH1 (SEQ ID NO: 8).

Please replace the paragraph at page 4, line 29, to page 5, line 2, with the following paragraph:

Figure 4 shows the structure of the GFP-tagged and truncated forms of the Arabidopsis CAH1 protein (SEQ ID NO: 7) used to localize the domain required for plastid localization. (1-40)CAH1, GFP-fusion containing the signal peptide for the ER (first 40 amino acids). (1-103)CAH1, GFP-fusion containing the first 103 amino acids of the CAH1. (1-40)CAH1-GFP-(224-284)CAH1, GFP-fusion containing the signal peptide for the ER (first 40 amino acids) plus the last 61 amino acid residues of the CAH1.

Please replace the paragraph at page 5, lines 22-25, with the following paragraph:

Examples of suitable ER signal sequence include;
MKIMMMIKLCFFSMSLICIAPADA (SEQ ID NO: 1),
MAASHGNAIFVLLLCTLFLPSLAC (SEQ ID NO: 2), and;
MAARIGIFSVFVAVLLSISAFSSA (SEQ ID NO: 3.

Please replace the paragraph at page 6, lines 17-25, with the following paragraph:

In some embodiments, an ER-plastid targeting sequence may comprise or consist of a 12 to 15 amino acid sequence from the C terminal of an ER-processed plastid polypeptide. Such a sequence may be hydrophilic and, in some preferred embodiments, may comprise 2, 3, 4 or more contiguous basic residues, in particular lysine and/or arginine residues. For example, an ER-plastid targeting sequence may be comprise or consist of the amino acid sequence KKETGNKKKKPN (SEQ ID NO: 4), RFWGKKKRRSSP (SEQ ID NO: 5) or TGKKKKKTYLP (SEQ ID NO:6). Other suitable sequences may be obtained from the C terminal region (*i.e.* the C terminal 20-30 amino acids) of a sequence from the list in Table 1.

Please replace the paragraph at page 24, line 17, to page 25, line 11, with the following paragraph:

The GFP reporter plasmid 35Ω-sGFP(S65T) and the plasmid containing the transit peptide (TP) sequence from RBCS fused to GFP (35Ω-TP-sGFP(S65T)) have been previously described (Chiu, W-L., *et al. Current Biol.* 6, 325-330 (1996)). The plasmids for expression of truncated *Arabidopsis* CAH1 protein fused to GFP were constructed as follows: The CaMV35S-CAH1-sGFP(S65T) corresponding to the coding region of *Arabidopsis* CAH1 was PCR-amplified using the two flanking primers for-*SalI* (TAAAAGTCGACATGAAGATTATGATGATGA) (SEQ ID NO: 9) and rev1-*NcoI* (AAAACCCATGGAATTGGGTTTTTTCTTTTT) (SEQ ID NO: 10) and the PCR product was cloned into the *SalI-NcoI* digested GFP reporter plasmid CaMV35S-sGFP(S65T). The protocol was similar for the other constructions. The CaMV35S-(1-40)CAH1-sGFP(S65T) corresponding to CAH1 containing the first 40 amino acids was PCR amplified using the two flanking primers for-*SalI* and rev2-*NcoI* (GTGTCCCATGGGGTTTGGTCCATTTTTGCC) (SEQ ID NO: 11). The CaMV35S-(1-103)CAH1-sGFP(S65T) corresponding to CAH1 containing the first 103 amino acids was PCR amplified using the two flanking primers for-*SalI* and rev3-*NcoI* (TATCACCATGGCTGCTCCCTCCCCGAAGA) (SEQ ID NO: 12). The CaMV35S-(1-40)CAH1-sGFP(S65T)-(224-284)CAH1 corresponding to CAH1 containing the first 40 and last 61 amino acids was PCR amplified using the two flanking primers for-*SalI* and rev2-*NcoI* and the two flanking primers for-*BsrGI* (TTCTTTGTACATCCTTGGCAAGGTGAGGTC) (SEQ ID NO: 13) and rev-*BsrGI* (GACAATGTACAACTATTTTAATTGGGTTTT) (SEQ ID NO: 14). The CaMV35S-

CAH1-sGFP(S65T)-KDEL (SEQ ID NO: 16) corresponding to the coding region of Arabidopsis CAH1 fused to a KDEL-tagged (SEQ ID NO: 16) GFP was PCR amplified using the two flanking primers for-SalI and rev2-BsrGI: ACAGTGTACACTAATGGTGATGGTGATGGTGATTGGGTTTTTTCTTTTTGTTACC (SEQ ID NO:15). The plasmids were sequenced to check that the orientation and sequences of the inserted fragments were correct. The plasmids used for tissue bombardment were prepared using the QIAfilter plasmid midi kit (Qiagen Laboratories).

Please replace the paragraph at page 28, lines 3-13, with the following paragraph:

For further examination of the domain required for chloroplast localization of the CAH1 protein, several versions of the CAH1 protein were generated and the effects of transiently expressing corresponding GFP fusions in Arabidopsis and BY2 tobacco cells were tested. The first 40 amino acid residues of CAH1, containing the predicted ER signal peptide, were fused to GFP containing an ER retention signal (KDEL) (SEQ ID NO: 16) in the C-terminus. This fusion protein was found to be retained in the ER, showing that the CAH1 ER signal peptide is functional and sufficient for targeting the protein to the secretory pathway. In addition, when the full-length protein was fused to GFP containing an ER retention signal (KDEL) (SEQ ID NO: 16), the fusion was also retained in the ER, thus ruling out that any domain in the mature protein blocks ER targeting. No GFP activity was observed in the chloroplasts for any of the constructs tested.

Please replace the paragraph that is the last line of page 32 with the following:

Table I
(GDSL motif disclosed as SEQ ID NO: 17)